# Il ruolo degli enti locali nel sistema energetico

# *The Role of Local Authorities in the Energy System: Lessons from the UK*

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## *Abstract*

Local engagement in clean energy is a critical topic for society as energy systems become increasingly decentralised, and needs new policy and more research. Our research shows that local ambitions in the UK are considerable and there are already highly diverse and impressive achievements, with energy saving and low carbon heat as key areas. Uncertainties over the future of energy policy and local government finances is however slowing down projects, instead of facilitating the step change needed to meet climate commitments. Interest in municipal energy has been renewed primarily in the context of climate protection and clean energy policies, but the critical questions about powers and resources are as yet unanswered. UK Local Authorities have no clear mandate for energy provision and have weak local political and fiscal powers. By contrast, in many northern European countries, municipal governments have a strong role in energy provision; this is usually matched by significant local political and financial powers.

## *1 Introduction: Why Local Authorities?*

Much is asserted about the potential for UK local governments to accelerate development of clean energy and achievement of climate protection goals (Scottish Government 2018; UK Committee on Climate Change 2012), but little is known about their current actions on energy, the actual capacity of 21st century UK LAs to act on energy, or the suitability of central government policies and institutions for facilitating localised energy provision. The research[1] and report[2] (Webb, Tingey and Hawkey 2017) upon which this article is based addresses some of the gaps by examining what is being done now, why and what could be achieved with more supportive policy, resources and markets.

There are good reasons for municipal action on clean energy and energy productivity. Local Authorities (LAs) are one of the very few organisations committed to an area for the long term; their democratic status, statutory duties, responsibilities in housing, waste, environment and transport, economic development and regeneration, planning and development powers, the scale and reach of associated operations and assets, and their relationships with civil society and businesses, are all significant. There is evidence that a more distributed system, with scope for local innovation and flexibility in energy supply and use, and making every building part of a networked clean, low energy infrastructure, would have system-wide benefits, serving policy goals for clean, affordable and secure energy.[3] These benefits seem unlikely to be feasible without LA participation. Ninety leading edge LAs have pledged to achieve 100% clean energy in their area by 2050 (uk100.org). Moreover declining budgets from central government mean that LAs are having to adopt a more commercial approach to revenues. Energy saving measures and local infrastructures, such as combined heat and power (CHP), energy from waste and renewable electricity generation, can provide reliable and long-term income to support revenues.

In principle, LAs can take on diverse roles in energy system transformation:

- Establishing a cross-sector vision and strategy for their area
- Co-ordinating spatial and energy planning and investment with commercial network operators for clean energy districts
- Sharing and developing new resources, knowledge and capacities through partnerships with others from neighbourhood groups to inward investors
- Investing in local energy provision and services, including building retrofit for energy saving, CHP, energy from waste and heat recovery, heat networks, renewables, storage, retail supply and electric vehicle infrastructure

[1] https://heatandthecity.org.uk/project/local-engagement-with-uk-energy-systems/

[2] The Report was aimed at LA energy practitioners, key policy makers and government officials, district energy practitioners and intermediaries.

[3] For domestic energy efficiency alone, recent analysis suggests a 'cost effective' scenario from investment in energy efficiency, heat pumps and heat networks would reduce current UK household energy demand by around 25% (Rosenow et al. 2017).

There are however big questions about political will at all levels of government, skills and expertise, finance and market regulation which need to be resolved for such roles to be realised effectively. Unlike some other European societies, UK LAs have no direct energy mandate, and their scope for action is constrained by central government budgetary control on the one hand (Travers 2012), and a market system geared to large scale generation and supply on the other (Ofgem 2017). In some other European countries, municipal and community energy businesses have continued to be part of energy service markets (Creamer et al 2018; Hall, Foxon and Bolton 2016; Hawkey 2016). UK municipal energy supply largely ended with 20th century nationalisation, followed by privatisation in the 1980s and 1990s. UK LAs have also been subject to significant reductions in budgets since the financial market crisis (National Audit Office 2014). This has made local energy planning more precarious, resulting in scaling back to opportunistic, small projects. Critical questions about powers and resources are as yet unanswered.

The research engaged a three phase research design: first, a review of LA engagement with energy across European countries, drawing on a range of grey and academic literature; second, a systematic overview of energy initiatives across the entire population of UK LAs; and, third an in-depth analysis of energy projects and business structures in a cross section of 40 LAs. The strategic sample of 40 LAs were selected in order to gain more in-depth insight into the challenges of a specific LA energy development. We focused on a particular project in each case to gather good evidence about the actual changes taking place in LA energy provision. Hence we wanted to find out more about specific investments, how these are being managed and funded and what these mean for the future. This moves beyond claims about what could be done and beyond research on single case studies, to empirical appraisal of what is being done, where and how. We use our data to discuss the challenges faced by LAs in moving from ambitious plans to implementation in the current context, and conclude by identifying key actions for LAs, and recommendations for central and devolved national governments where more supportive institutions would make LA energy saving and clean energy provision more feasible.

Findings reveal considerable diversity in LA energy activities across countries and over time in Europe. Historically LAs have played a strong role in energy provision in those countries where there are more general traditions of municipal service provision and political and financial autonomy. In the UK, local government has both less autonomy overall and a weak institutional basis for engagement with energy. The expectations on LAs also differ across central and devolved national governments. Mapping LA initiatives across the UK revealed proportionally greater activity in Scotland; and within England in London and Yorkshire. The local projects examined in 40 case studies mainly tackled heat, and energy efficiency, as well as generating renewable electricity. Even in this small sample LAs used a variety of business structures and engaged with partners from all sectors, including commercial energy utilities and community enterprises. Contrasting business structures served similar purposes, indicating the adaptability of structures to local requirements, circumstances and expertise.

# *2 Challenges and opportunities for Local Government engagement with energy across Europe and in the United Kingdom*

## 2.1 European Local Authority engagement with energy

In Europe there was considerable diversity in Local Authority (LA) energy activities across countries and over time (Hawkey 2015) which we analysed using Hesse and Sharpe's (1991) typology of local government systems. Historically, in *Northern and Middle European* countries such as Germany, Denmark and the Netherlands, LAs have played a strong role in energy provision reflecting more general traditions of municipal service provision combined with a high degree of political and financial autonomy. In countries where LAs traditionally had less autonomy or more limited roles in service provision, local energy systems developed in haphazard ways resulting in poor efficiency. In these countries (e.g. France, Italy and the UK), central governments took control of energy systems leaving LAs with very limited, if any, roles.

Unbundling and privatisation of energy systems and local services has been a consistent trend across Europe since the latter decades of the twentieth century. Before these developments, municipal energy could rely on cross-subsidisation, vertical integration, local monopoly and coordination with other municipal services such as housing. Liberalisation and privatisation have tended to prise these inter-relations apart. Nonetheless, our analysis indicates *North and Middle European* countries continue to have relatively high levels of local engagement with energy, and receive disproportionately high levels of Intelligent Energy Europe (IEE) funding.

Local authority entrepreneurialism was a common motif across the cases examined (in Austria, Germany, Norway, the Netherlands and Sweden, see Hawkey 2015), both before and after liberalisation, with local circumstances and individual leaders often being important to initiation of local energy programmes. The persistence and growth of local energy programmes tends to be dependent on supportive financial and regulatory contexts, underlining the importance of coordination between local engagement and central government policy. Many municipalities across Europe have received funding for pilot initiatives, but struggled to create momentum in the context of liberalised energy markets and unbundled local services. In spite of scaling up being a consistent theme of European funding programmes, projects often remain as bounded pilots (Labaeye and Sauer 2013). In particular where structural limits to LA capacities confine their activities to upgrading the public estate, spill-overs to other sectors have not generally been secured (e.g. ManagEnergy 2013). The local challenges associated with unbundling and fragmentation are paralleled by increasingly narrowly defined national and European support programmes, which have prevented LAs re-integrating *ad hoc* projects into more comprehensive initiatives (IEE and INTERact 2013).

While the history of LA engagement with energy shows considerable variation across European countries, some themes converge with current challenges to LA energy in the UK. These include challenges of coordination; scaling up pilot initiatives into resilient programmes; and having to pursue social and environmental objectives via regulatory and organisational configurations which prioritise commercial returns.

## 2.2 The UK context for Local Authority action on energy

In the UK policy developments and financial support for local initiatives have a 'stop-start' characteristic and were perceived by LAs officers to be unreliable (Webb, Tingey and Hawkey 2017). Example from across the UK include the failure of the UK Green Deal; unanticipated and rapid reductions in Feed-in-Tariff rates for small scale renewable energy; and reduced funding and eligibility from the Energy Company Obligation scheme for energy and heating improvements in housing. These create uncertainties, and combined with austerity in public finances were a significant factor in slowing down or stalling developments, and in reducing the scale of investments.

There is however a renewed political debate in the UK about public and private sectors roles in the economy and about ownership in a low carbon energy system (see Hawkey, Tingey and Webb 2018). The UK Labour party, Scottish National Party (and Scottish Government) and Plaid Cymru have all proposed different forms of publicly owned energy companies. Public ownership of energy is already existing in UK municipal businesses. In licensed energy supply this includes Robin Hood Energy, Bristol Energy (owned respectively by the city councils of Nottingham and Bristol) and Our Power – an energy company mutually owned by Scottish social housing providers, LAs and community organisations.

The expectations on LAs differ across central and devolved national governments and national government policy developments are ongoing. For example latest policy by UK Government, the Clean Growth Strategy (UK Government 2017), makes limited reference to new energy efficiency policies; had no plan to renew zero carbon housing standards; and continues a main focus on electricity market instruments, to the neglect of action on clean heat and transport, which are likely to require involvement of urban LAs. The newly announced Prospering from the Energy Revolution Challenge will however fund smart local energy systems demonstrators (Innovate UK 2018), and the Heat Network Investment Project seeks to scale up investment in district heating infrastructure (Department for Business, Energy and Industrial Strategy 2017). English regional devolution settlements also create new opportunities, but energy has thus far not been *central* in new city governance arrangements.

By contrast, Scottish energy policies including the 2017 Scottish Energy Strategy (Scottish Government 2017a) increasingly recognise localised forms of energy organisation. Scottish central and local governments jointly work on development of a national programme Energy Efficient Scotland, a 20 year plan for mandatory energy performance upgrades in all existing domestic and non-domestic buildings and standards for new buildings (Scottish Government 2018). Ongoing proposals also include a statutory duty for LAs to develop and implement Local Heat and Energy Efficiency Strategies (Scottish Government 2017b). Additionally in Scotland, the Scottish Climate Change Act 2009 requires all public bodies to act in the way best calculated to contribute to delivery of emissions reduction targets; a stipulation absent in other parts of the UK. Current policy debates in Scotland attempt to engage more directly with societal dimensions of energy including democratisation, accountability and public representation.

All Welsh LAs have a voluntary target of 3% annual $CO_2$ emissions reduction which is reported to the Welsh Government and along with other Welsh public bodies are required by

the Well-being of Future Generations Act 2015 to act in line with sustainable development. The Welsh Government has also begun a Green Growth Wales programme for local energy (Welsh Government 2015) and has published the Energy Efficiency Strategy for Wales (Welsh Government 2016). Northern Irish LAs have fewer responsibilities overall than other UK LAs. In 2014 local government in Northern Ireland was also restructured to create 11 new LA areas (down from 26). New powers were created for local development plans, planning, economic development, urban regeneration and community development, but no specific energy powers.

### 3.1 Mapping local government energy initiatives across the UK

Drawing from secondary analysis of published data about clean energy plans and investments, the majority of UK LAs were found to be active to some extent, revealing widely established ambition: 82% had developed sustainable energy plans and/or investments in energy projects.[4] A total of 458 energy projects were identified across 208 LAs (there were 434 LAs at the time data was gathered; now there are 419 following a restructure of local government in Northern Ireland). Overall however, this was found to be small scale and uneven material investment. Where LAs are making investments in local energy infrastructures the focus of action was in heat and energy efficiency for a low carbon, low energy building stock. This accounted for three quarters of investment across these projects. Only a minority (13% or 55) of LAs combined these into a more strategic local energy programme.

Mapping energy initiatives across all UK Local Authorities has revealed considerable national and regional variation in activity (Figure 1). Across the UK's nations and regions there was proportionately greater activity in Scotland (classified as energy leaders in our analysis) than in England, Wales and Northern Ireland; considerable variation was also found across English regions with greater activity in London and Yorkshire. In some parts of England there are two levels of local government, one handling functions like education and strategic planning across a wide area, and a lower level handling functions including housing and economic development in a smaller area. We found this arrangement led to comparatively low levels of engagement, with authorities that take responsibility across local services more active.

Figure 1 here:

Figure 1. UK Local Authority engagement in energy systems

Source: Webb, Tingey and Hawkey (2017)

We investigated the characteristics of active authorities. Notably there was a correlation between existence of a LA energy and carbon plan and number of energy projects.[5] Engagement also correlated with size of population; the most active authorities were, on average, about twice the size of the least active, suggesting that authorities with more

[4] For detailed analysis of the mapping study see Tingey, Hawkey and Webb (2016); Tingey, Webb and Hawkey (2017); Webb, Hawkey and Tingey (2016).
[5] Statistically significant $X^2$=13.87, df=2, p=0.0009. In a contingency table at the level of Scotland, Wales and Northern Ireland cell counts are too low to calculate chi square test of significance.

resources are better able to develop energy initiatives. The most active authorities also had higher corporate energy consumption and corporate $CO_2$ emissions (about twice the size of the least active) which could indicate greater concern to reduce corporate energy bills and may encourage investment in local energy provision for their corporate estate. Authorities with overt political commitments to sustainable energy, defined as membership of the EU Covenant of Mayors, also tended to have higher levels of engagement, suggesting that buy-in at senior levels is significant.

The findings indicate that LAs with more responsibilities have greater scope for integrating energy into statutory service provision. Those with greater responsibility for local services also have larger budgets and estates, as well as more to gain from savings on corporate energy bills. Enhancing specific LA powers and responsibilities could therefore lead to higher levels of engagement with low carbon energy and energy saving. Central and devolved governments could support action through dedicated infrastructure delivery agencies with the skill mix and resources needed to ensure that all viable projects can proceed. The UK debate about devolved and regional government powers is hence significant for the future of local energy planning and investment.

### 3.2 Business structures, delivery partners and organisation in a sample of energy projects

We investigated energy initiatives from a strategic sample of 40 LAs in more detail using interviews, questionnaire and documentary analysis methods. Projects were highly diverse, though mainly tackled heat and energy efficiency, as well as generating renewable electricity (Figure 2). Projects included combined heat and power, renewable electricity generation from solar PV and small scale hydropower, and improvements to the corporate estate and domestic buildings. The sample extended beyond technology deployment to include a municipally owned licenced gas and electricity supply company, a smart grid pilot and a supply chain capacity building initiative.

Figure 2 here:

Figure 2. The different types of energy initiatives included in the LA case studies

Source: Webb, Tingey and Hawkey (2017)

There was no predictable trajectory and no single service or directorate initiating energy projects indicating the varied governance arrangements for LA energy. Instead projects emerged where there was a commitment to clean energy as a valuable component of core services, and an opportunity to assemble the finance. Similar to cases reviewed across Europe, success often required a dedicated and enthusiastic champion, who persisted long term despite political change.

The objectives of energy projects were also diverse. Carbon and energy saving were common goals, but projects were also expected to benefit economic development and to generate new income, cut energy bills for the council and/or households. Some LA projects prioritised local

social and economic value where high rates of return on financial investment were not critical.

We found a variety of business structures in use involving a range of partners (Figure 3). Projects that were directly managed by the LA were compared with those established as independent businesses. The majority (25) were managed directly. Integration into existing council structures, capacities and cross-sector partnerships were all reasons for this approach, as well as terms and conditions of funding. Independent businesses included commercial and non-profit enterprises, with municipal energy service companies (ESCos), private sector-led ESCos and community benefit societies. These illustrated alternative business models for LA energy provision with a range of partners.

Figure 3 here:

Figure 3. Types of energy projects according to business structure

Source: Webb, Tingey and Hawkey (2017)

Different business structures were used to meet similar goals, indicating there is no necessary relationship between objectives, technologies and business structures, but adaptability to local requirements, circumstances and expertise. Regardless of the business structure in use, LA officers we interviewed perceived local government as having a social, ethical and political responsibility to contribute to localised energy provision and energy management for purposes of climate protection, economic regeneration and welfare.

Overall there was a significant impact of public funding on the capacity for LA energy developments in the case projects; commercial investments were regarded as more difficult to secure at an affordable price and on locally acceptable terms. Estimated capital expenditure across the selected projects had a total value of around £356 million with a significant range from £10,000 to £47m.

### 3.3 Navigating challenges and improvising solutions to LA energy strategies

Implementing a local energy strategy and investing in projects in our sample of 40 LA often depended on fortuitous circumstances and a means of aligning a project with existing management processes. The lack of LA core funding for energy teams made energy a low priority compared to other service areas; projects were often a niche activity, with limited senior management or cross-council contributions. In addition, austerity in public finances resulted in disruption to energy and sustainability teams through restructuring and redundancies; delayed project development due to limited resources in council legal, financial, procurement and engineering services; and dwindling finance for capital investment. In the cases examined a series of locally-devised solutions were observed, which provide a basis for replicable development processes and institution building.

#### *3.3.1 Solutions to lack of core funding for energy teams*

- Making energy prominent in local strategy, future vision and investment: vision statements translated into investment plans for clean, affordable energy made energy prominent in council business and decision making.
- Making energy a responsibility of Chief Executive Office and Council Executive: senior management and cabinet accountability for energy were significant routes to institutionalising responsibility for energy and reducing $CO_2$ emissions at least with respect to the council's own estate.
- Securing political leadership and cross party support: elected members' political commitment was a critical complement to that of senior management, bringing specific pressures for action and assembly of resources; securing cross-party support was a significant source of stability and a route to institutionalising LA energy programmes.
- Pragmatic starting points and "Easy Wins": when constrained resources and limited expertise put boundaries around ambition, 'easy gains' and bounded projects were a route to making energy more prominent in council business. Success in small schemes was a means to gaining 'hands-on' experience and knowledge about other energy opportunities and confidence to proceed.
- Building LA capacity and expertise from public sector networks: LA networks provided opportunities for officers to share solutions and were perceived as particularly valuable for officers working alone or in small teams.

### *3.3.2 Mitigating austerity in public finances and increasing the scope for LA energy provision*

- Self-financing energy teams: these were primarily using competitive UK and European grant funding to advance LA energy provision; a 'spend to generate' model was also used to support investment in an energy team.
- Integrating energy services into finance and capital investment programmes: in these cases energy services were constituted as part of capital projects and positioned as a new long term revenue source.
- Project or Programme Delivery Units: these centred on developing in-house technical capacity for a programme of low carbon energy investment.
- Using intermediary organisations to support project development and to mitigate restructuring, staff turnover and institutional memory loss: absence of council technical, financial and legal expertise in energy systems, and limited practical experience of energy services in recent LA history, made specialist engineering and business consultancy critical to assessment of options.
- Pooled resources: structures such as combined authorities enabled investment in centralised resource and expertise with the aim of reliable, cost effective development of a pipeline of low carbon infrastructure projects.

## *4 Discussion and Conclusions*

The diverse solutions to current structural problems faced by those Local Authorities (LAs) with ambitions to act on clean energy demonstrate their resourcefulness in assembling

capacities and finances. Entrepreneurial officers, committed local politicians, and fortuitous financial circumstances have been critical, but circumstances have often depended on funding from European programmes which will need to be replaced if the UK leaves the EU. There is evidence of technical skills being rebuilt; energy being integrated into longer term capital investment strategies for local regeneration and prosperity; programme development units and national and regional authority structures creating new local capacities to act in energy markets. These solutions show that there is scope for more to be done, even within current financial stringencies, government structures and centralised energy markets.

Energy use is implicated in every area of public services and is key to rethinking local government in an era when central government budgets are highly constrained. Strategies and problem owners are not yet clear, but motivations and principles are in place, rehearsed through emerging networks, intermediary agencies and experimental business models and commercial structures. Existing LA initiatives help to exemplify the potential for a more mixed economy of energy, and a more distributed system, in the UK with private, public and civil society contributors, and a significant role for municipalities. The composition of this mixed economy cannot simply be read off from the experience of local authorities; many opportunities could however be opened up and current problems could be eased with a clearer central and devolved national government framework for LA action on energy and a consensus across levels of government on the local contribution to delivery of future energy systems.

## 4.1 Recommendations

Research findings suggest five areas for consideration at UK and devolved national, government levels and six key actions for LAs. These suggestions are intended to secure more systematic, cost effective LA action on clean energy, and to enable scaling up when this is demonstrably a valuable contribution to a low carbon, affordable and resilient energy system. They are areas where more supportive institutions would make a LA contribution more feasible, but where clear agreement is lacking at present. If the sector is to grow beyond the current pattern of *ad hoc*, precarious and opportunistic projects to make a more significant and systematic contribution to a clean energy transition, consensus building is needed. There is unlikely to be a single model for localised energy planning, development and management which works everywhere, but we know from European practice that coordination between local and national governments, as well as specific powers and procedures for energy planning, supportive regulation, and access to low cost, long term finance are all critical to energy systems with a strong municipal component.

### *4.1.1 Recommendations for Central and Devolved National Governments*

1. **UK government and devolved national government plans need to clarify the role and responsibilities of LAs in energy saving and clean energy, and to establish stable policy and support measures with clear trajectories and timetables**

The aim of this recommendation is to build a working consensus on roles and formal responsibilities in order to channel LA resources effectively, and to avoid frustrations arising from repeated need for improvisation in uncertain circumstances. This includes clarity on the

role and responsibilities of LAs in energy saving and clean energy, including district energy developments and major emissions reductions from buildings. Whilst the UK has met its carbon targets so far, the UK Committee on Climate Change (2017) has identified critical decision points, and timing, for carbon budgets; these decisions need to encompass the responsibilities of LAs and ensure adequate resources are available.

2. **Additional powers for LAs to deliver their energy-related responsibilities**

If LAs are to make a systematic contribution to a more distributed clean energy system, statutory powers and responsibilities need to be reviewed. Clarifying expectations (Recommendation 1) is hence a necessary part of building a consensus on the role and responsibilities of LAs for energy initiatives and on the operation of any statutory powers. Rather than a 'box ticking' exercise, any statutory energy functions should be a means of conferring meaningful resources to assist overcoming current uncertainties, drive structural change and mobilise resources to create a single problem-owner for local clean energy planning and implementation, and establish the route for coordination between national and local energy system planning and development.

3. **Support agencies and shared services for LA energy developments**

To support delivery of strategic plans and achieve economies of scale across LAs, central and devolved national governments should consider establishing hubs of expertise, building on existing capacity building structures and procurement processes. These could take the form of national or regional energy agencies and/or specialist procurement organisations to support and assist in coordination of local and national energy plans, and identify opportunities for shared project delivery.

4. **Local Authority access to low cost, long term infrastructure finance**

Central and devolved national governments should review the existing framework of support for LA access to low cost, long term finance to ensure that there are adequate and suitable provisions for the full range of local clean energy and energy saving investments. Application processes need to align with LA decision making timescales. In addition to established prudential borrowing from the Public Works Loan Board and capital budget spending, support is needed for LA appraisal of the full range of financing options.

5. **Energy market regulation**

In discussion with LAs, central and devolved national governments, Ofgem, the UK energy regulator, should explore further the issues faced by local energy operators, and the potential for increased contribution at locality scale. No regulatory system is neutral but if a greater role for local energy is a target of government policy, there is a need for regulatory reform to support that objective.

### *4.1.2 Actions for Local Authorities*

1. **Articulate a clean energy plan geared to ensuring internal support from senior management and cross-party commitment**

A clean energy strategy needs to be backed by an investment plan which is material to decision making. Alignment with local political and corporate objectives provides a clear rationale for engagement. It needs to be reinforced by senior management and political

leadership. Long term cross-party political support is critical to effective implementation and overcoming disruption caused by political change.

2. **Create a management structure to scale up delivery of LA clean energy plans**

As well as clear articulation of plans, LAs need an organisational structure (energy team or delivery unit) designed to focus on implementation. Project or Programme Delivery Units have increased the scale and pace of projects, while enabling prioritisation of investment opportunities and continuity. Successful delivery involves engaging LA finance, legal and procurement services at the earliest stage to assess in-house expertise and transferable skills. There is also scope for LAs to share the resource demands of delivery, and provides a route to aggregation of clean energy proposals and investment.

3. **Build a business case and assess financing options for energy projects**

Building a business case that captures the wider material benefits of energy projects enables the articulation of links between energy, and local political and corporate objectives. It also creates the basis for longer term investment appraisal incorporating the non-financial benefits associated with LA provision.

4. **Collaborate with other LAs and intermediary agencies to build capacity and technical expertise in the sector**

Intermediary organisations and government support programmes can be used to overcome skills or capacity gaps. Targeted use of external expertise is best when translated into opportunities to capture learning and to develop new internal skills and expertise among LA officers.

5. **Use planning powers systematically to support development of clean energy and low energy buildings across the LA area**

Planning authorities have scope to use planning powers to set standards for developers to make best use of local development planning powers and supplementary guidance to support the highest energy efficiency standards and take up of district heating through presumption in favour of connection and/or enabling new building for future connection. Local planning should be informed by the overarching local authority clean energy plan.

6. **Aim to facilitate and enable local and regional cross-section action on clean energy**

To move from near-term projects to more ambitious longer-term developments, LAs need to identify the critical parties and bring them into the process of setting a clear local strategy for energy and investing in its implementation. More ambitious strategies generally involve multiple local organisations, and multi-lateral negotiation and decision-making.

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